Exemption No. 7561

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98055-4056

In the matter of the petition of **Associated Air Center** for an exemption from § 25.813(e), of Title 14, Code of Federal Regulations	**Regulatory Docket No. FAA-2001-9101**

GRANT OF EXEMPTION

By letters dated February 20, 2001, and February 21, 2001, Mr. Richard McFadden, Certification Director, Associated Air Center, P.O. Box 540728, Dallas, Texas 75234, petitioned for an exemption from § 25.813(e) of Title 14, Code of Federal Regulations (14 CFR). The petitioner has requested the exemption in order to permit the installation of interior doors between passenger compartments on one private-use Boeing Model 737 airplane.

The petitioner requests relief from the following regulation:

Section 25.813(e) - prohibits the installation of doors between passenger compartments.

The petitioner's supportive information is as follows:

"Background:

"Associated Air Center requests that the relief provided for the Boeing Model 737-700 IGW relative to interior doors between passenger compartments, as described in Exemption No. 6820A, be expanded to include the above referenced airplane.

ANM-01-333-E

"Discussion

"The Federal Aviation Regulations (FARs) do not consider the situation of private use transport category airplanes, in the FAR 25 requirements. Those requirements are [predicated] on airline common carrier, commercial passenger operations carrying fare paying passengers from the general public. Associated Air Center believes that the design of an airplane for private use, and the associated operation of the airplane in private use, should justify an exemption, based on the fact the FARs do not currently cover or consider such a design and operation and [a] new view of such designs and operations is needed by the FAA. In addition Associated Air Center has proposed alternative requirements, which provide an appropriate level of safety for the intended use of the airplanes and for the airplanes occupants.

"The FAA position of a Partial Grant of Exemption for the 737-700 IGW with interior doors permitted with provisions [should] be granted to the 737-2H4. Both airplanes have the same cross section (narrow body). These type airplanes can be considered one of the larger private use planes; its cabin width available for interior rooms is still only about 12 feet. Private areas or conference rooms will often need to span the whole cabin in order to be practical. For such arrangements, privacy can only be provided by means of doors, and therefore, an exemption is needed to allow full use of airplane capabilities without compromising safety for those onboard. All passengers are equally important, wherever they are located.

"Basis For Exemption

"As stated in Exemption No. 6820A, the FAA is aware that the precedent has been established for other private use narrow body airplanes to be equipped with interior doors.

"Exemption Will Be In The American Public Interest

"Approval of this request for certain exemptions for the Boeing Model 737-2H4 when configured for business jet applications, and operated under FAR Part 91 or Part 125 is in the public interest of the people of the United States of America.

"1. Given the proliferation of Executive Configured Transport Category Airplanes currently taking place, and anticipated in the near future, approval of these exemptions will enable the United States manufacturers of Transport Category Airplanes to effectively compete in this expanding market.
"2. Additional sales of United States manufactured airplanes outside of the traditional airline market, and completion of many of them at United States owned and operated Aircraft Completion Facilities, will serve to increase the profitability of these manufacturers and their supplying/supporting companies.

"3. Stability and improved financial performance of these United States companies gives greater job stability to the workers employed by the companies, causing a stabilizing influence to the greater United States economy, due to the consumer pending activities associated with stable workers.
"4. Improved financial performance of United States owned and operated corporations and increased work force stability translates to continued and improved local state and federal tax revenues, which in turn adds to the stability of the total United States economy.
"5. Improved financial performance allows United States corporations to continue to invest in Research and Development allowing the United States to maintain or improve its competitive position in the world economy.
"6. A large number of these types of airplanes will probably be sold to "offshore" clients, improving the United States balance of trade.
"7. Since the passengers aboard these airplanes will not be revenue paying customers of the airlines, there can be no degradation to airline passenger safety, and therefore no detrimental impact on the public at large. It is interesting to note the only commenters were modification centers and customers who strongly supported the initial petition.

"The FAA's Analysis/Summary, Exemption No. 6820A

"Interior Doors

"This issue is clearly quite significant to the segment of the public that will operate these airplanes. The flexibility to partition the airplane in a multitude of locations for customization is regarded as paramount to an acceptable interior. The availability of private meeting spaces is essential. The FAA acknowledges the desirability of this feature from the operator's point of view.

"However, it continues to be the FAA position, that even with the limitations as noted in Exemption No. 6820, an equivalent level of safety cannot be provided when doors span the main cabin aisle. In the petition for reconsideration, the petitioner acknowledges that the level of safety may not be the same, but states that it is adequate for the type of operation involved. The segment of the public operating the airplane and comprising the primary passenger population for these airplanes has requested this exemption, with recognition of the potential change in the level of safety.

"After considerable deliberation, the FAA has concluded that the installation of interior doors that span the main cabin aisle can be allowed with certain limitations. (These limitations are in addition to the limitations placed on side aisle doors in Exemptions No. 6820). In order to maximize the level of safety, the FAA will require that the doors installed across the main cabin aisle open and close in a transverse direction. That is, the direction of motion of the door must be at a right angle to the longitudinal axis of the

airplane. A "pocket door" is one example of such a design. This will tend to minimize the chance that the inertia forces of an accident could force the door closed. The FAA will also require that notification of the existence of the doors be provided to passengers who are flying on the aircraft for the first time. These conditions, in combination with existing door conditions in Exemption No. 6820 (that the doors be frangible, that they have dual retention means and that a means be provided to notify the flight crew when the door is closed) will assure an adequate level of safety for occupants in private aircraft operations.

"In reaching this decision, the FAA is aware that this exemption will likely be a precedent for other private use narrow body airplanes. In addition, this decision differs with the FAA's proposal in the Notice of Proposed Rulemaking (NPRM) 96-9. The FAA will take into account this exemption during the processing of the final rules, which will result from NPRM 96-9.

"With respect to means to indicate whether the door is properly configured for takeoff and landing, for the reasons discussed in Exemption No. 6820, this feature is even more essential with this additional grant of exemption. Therefore, that portion of the request for reconsideration is denied.

"Passenger Notification

"Although many persons will be frequent passengers on these airplanes, some passengers will be unfamiliar with their operation and with differences with commercial passenger operations. These persons will not be aware of the specific grants of exemption, and might assume that these airplanes were effectively equivalent to airplanes used by a commercial operator. For this reason, the FAA considers that it is necessary for each passenger to be made aware that the particular airplane differs from the occupant safety standards mandated for the airplane type in general. The FAA will allow each operator to determine how best to accomplish this notification, but will require that procedures be developed whereby each passenger is so informed, prior to flying on the airplane for the first time. The notification to any individual need only be accomplished once.

"While the FAA is not aware of any specific incidents of economic harm as a result of different standards being applied to different private use airplanes, the FAA acknowledges that significant upgrading of the occupant safety standards in recent years has made this a distinct possibility. Furthermore, as more airplanes are utilized in executive operation, differences in certification bases will become more significant in terms of the burden of compliance. This issue is generally not a factor for commercial operation, because the operating rules are typically upgraded along with the type design standards, making the requirements effectively the same for all manufacturers. For privately operated airplanes, this is not the case. Thus while a grant of exemption is clearly in the interest of the segment of the public for which it is requested, the FAA

agrees that the public at large has the potential to benefit by granting increased flexibility to the manufacturer and modification of the 737-700 IGW.

"While these additional grants of exemption cannot be said to provide the same level of safety that would be afforded were the strict compliance with the regulations, or in accordance with the initial partial grant, the resultant level of safety is consistent with other private use airplanes. For example, the majority of transport category airplanes used in private operation are not required to comply with the heat release and smoke emissions regulations, by virtue of their earlier certification bases. With respect to interior doors, if the compartments separated by doors are looked at individually, the resultant interior arrangements are typically (although not exclusively) quite similar to small private use airplanes that only require a single pair of exits. The FAA also notes that no other parties have expressed an interest in this petition.

"Conclusion

"In consideration of Exemption No. 6820A, the FAA found that a partial grant of exemptions was in the public interest and did not adversely affect the level of safety provided by the requirements. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701 the Administrator granted Boeing Commercial Airplane Group an exemption from the requirements of FAR Part 25.813(e) to allow installation of interior doors between passenger compartments, with provisions. Associated Air Center seeks the same relief with the same provisions for the 737-2H4 airplane. Granted provisions as described in Exemption No. 6820A follow:

"1 . The airplane is not operated for hire, or offered for common carriage.

"2. Each door between passenger compartments must be frangible.

"3. Each door between passenger compartments must have a means to signal to the flight crew when the door is closed. Appropriate procedure/limitations to ensure that takeoff and landing is prohibited, when any such door is not in the proper takeoff and landing configuration, must be established.

"4. Each door between passenger compartments must have dual means to retain it in the open position, each of which are capable of reacting the inertia loads specified in FAR Part 25.561.

"5. Doors installed across a longitudinal aisle must translate laterally to open and close.

"6. When doors are installed in specified egress paths, each passenger must be so informed. This notification is only required prior to the first time a person is a passenger on the airplane." [Exemption No. 7107]

Notice and Public Procedure Provided

On April 30, 2001 (66 FR 21431), the FAA published notice of the petition for exemption in the Federal Register and requested comments from the public. No comments were received in response to the notice.

FAA Analysis of the Petition

Differences exist between commercial and private use operation (whether by an individual or a corporation) of transport category airplanes that warrant consideration of the appropriate level of safety that is warranted. The FAA is giving great attention to the issues raised when these airplanes are operated in private use. In recognizing the differences between commercial and private use operations, the FAA has identified several regulatory requirements, including the subject of this petition, that may need to be revised to address the safety issues revealed by these differences. The FAA is currently reviewing the adequacy of the current regulations and in the future may propose revisions to the requirements, where appropriate.

The current regulations allow the installation of interior doors, provided that passengers cannot be seated on both sides of the door during takeoff and landing. The FAA has safety concerns regarding doors that are located between passengers and exits. The FAA has proposed to prohibit such installations in future designs, as detailed in Notice of Proposed Rulemaking 96-9 (61 FR 38551, July 24, 1996). However, until the regulations are revised, such doors may continue to be installed without the need to process a petition for exemption. Additionally, the FAA has recently issued exemptions for private use airplanes that would permit installation of doors between passenger compartments, provided that certain limitations are met. The petitioner has proposed these limitations as part of this petition.

While a grant of exemption cannot be said to provide the same level of safety that would be afforded were there strict compliance with the regulations, the resultant level of safety is consistent with other private use airplanes. In addition, the level of safety that results from this exemption is specifically requested and desired by that segment of the public, namely the owners, who will fly on these airplanes. The FAA also notes that no other parties have expressed an interest in this petition.

With respect to the possibility that a door will remain closed when it should not be, the FAA believes that a higher level of awareness is required to address this issue. Due to the relative complexity of the cabin interior, the FAA does not believe that inspection by flight attendants prior to takeoff and landing is sufficient to verify that interior doors are in their proper position.

Consequently, some type of remote indication is considered necessary; the petitioner's proposal to provide remote indication to the flight crew is considered adequate.

With respect to the integrity of the means used to latch doors open for takeoff and landing, the FAA considers that redundant means are necessary, as proposed. Each latching means should have the capability of retaining the door in the takeoff and landing position under the inertia forces of § 25.561. In addition, the FAA believes that the door must be frangible, in the event that it is closed, or closes, during an emergency landing. Frangibility may be demonstrated in accordance with the criteria set forth in Advisory Circular 25-17, paragraph 43.b(2).

After considerable deliberation, the FAA has concluded that the installation of interior doors that span the main cabin aisle can be allowed with certain limitations. In order to maximize the level of safety, the FAA will require that certain limitations be made mandatory to permit such installations. The FAA will require that the doors installed across the main cabin aisle open and close in a transverse direction; that is, the direction of motion of the door must be at a right angle to the longitudinal axis of the airplane. A "pocket door" is one example of such a design. This will tend to minimize the chance that the inertia forces of an accident could force the door closed. The FAA will also require that notification of the existence of the doors be provided to passengers who are flying on the aircraft for the first time. These conditions will assure an adequate level of safety for occupants in private aircraft operations. As noted previously, there are precedents for this decision involving other private use airplanes.

The Grant of Exemption

In consideration of the foregoing, I find that a grant of exemption is in the pubic interest and will not adversely affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701, delegated to me by the Administrator, Associated Air Center is hereby granted an exemption from 14 CFR 25.813(e). This exemption is granted to the extent necessary to allow installation of interior doors between passenger compartments on the Boeing Model 737-2H4 airplane, and is subject to the following provisions:

1. The airplane is not operated for hire or offered for common carriage. This provision does not preclude the operator from receiving remuneration to the extent consistent with 14 CFR part 125 and 14 CFR part 91, subpart F, as applicable.

2. Each door between passenger compartments must be frangible.

3. Each door between passenger compartments must have a means to signal to the flight crew when the door is closed. Appropriate procedures/limitations to ensure that takeoff and landing is prohibited, when any such door is not in the proper takeoff and landing configuration, must be established.

4. Each door between passenger compartments must have dual means to retain it in the open position, each of which is capable of reacting the inertia loads specified in 14 CFR 25.561.

5. Doors installed across a longitudinal aisle must translate laterally to open and close.

6. When doors are installed in specified egress paths, each passenger must be informed that the airplane does not comply with the occupant safety requirements mandated for the airplane type in general. This notification is only required the first time that a person is a passenger on the airplane.

Issued in Renton, Washington, on July 3, 2001.

/s/ Donald L. Riggin
Acting Manager, Transport Airplane Directorate
Aircraft Certification Service